Development of a Ship Ballast Water Treatment Technology Verification Protocol Through an Interagency/Private Partnership

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The introduction of nonindigenous aquatic nuisance species through the discharge of shipboard ballast water into coastal areas around the world has had profound negative impacts on aquatic ecosystems worldwide. Aquatic nuisance species are one of the most important environmental issues facing the marine community today, and many governments have given attention to the problem by researching ballast water management techniques and. more recently, ballast water treatment technology.

In 2001, the U.S. Environmental Protection Agency (U.S. EPA) and the U.S. Coast Guard joined together under the U.S. EPA's Environmental Technology Verification Program (ETV) to develop a protocol to verify the technical performance characteristics of full-scale commercial ready technologies designed to treat shipboard ballast water. Under this interagency agreement, international technical exchange meetings, and coordination with the U.S. EPA's Office of International Activities, a partnership (via a letter of intent) with the Singapore Government and the Institute of Environmental Science and Engineering was established to initiate a parallel testing capability and reciprocal verification authority. Singapore's commercial ports are a major hub for international shipping for the Asian markets, and the government knows that protecting the marine environment and maintaining a leadership role in emerging technologies is essential. A facility is currently being built at the Naval Research Laboratory in Key West, FL, that will provide the U.S. Coast Guard, the Navy, and the U.S. EPA an opportunity to conduct ballast water technology verification tests in accordance with requirements contained in the ETV protocol.

This poster highlights the cooperation and responsibilities of the interagency partners, stakeholders, and technical assistance groups in developing the joint protocol, the testing facility, and the importance of technology verification.